

REMARKS

STATUS OF CLAIMS

Having amended claims 45 and 49, claims 45-52 are pending in the present application.

No new material is believed to have been added by the amendments.

I. Hurwitt and Hurwitt Combined with Other Patents

A. Hurwitt

In the Office Action dated November 3, 2004 (the “Office Action”), the Examiner rejected claims 45-46 and 49-50 under 35 U.S.C. §102 (b) over U.S.P.N. 5,126,028 issued to Hurwitt et al. (the “Hurwitt”). (¶2 of the Office Action.) The rejection is respectfully traversed.

Amended claim 45 requires that the first and second specified qualities to include: a processing time required to perform the at least one process, a rate of producing defective output products of the at least one process, a uniformity of output products of the at least one process, and a capability index of the at least one process.

As the Examiner stated, the Hurwitt describes using “processing TIME” (Col. 21, line 7). However, the Hurwitt fails to disclose all the specified qualities recited in claim 45 as amended. Hence, claim 45, claim 46 (which depends on claim 45), claim 49 (which recites similar specified qualities as in claim 45), and claim 50 (which depends on claim 49) are patentably distinguishable from the Hurwitt. The Examiner is respectfully requested to withdraw this rejection.

B. Hurwitt Combined with Other Patents

The Examiner rejected claims 47 and 51 under 35 U.S.C. §103(a) over the Hurwitt in view of U.S.P.N. 6,074,443 issued to Venkatesh et al. (the “Venkatesh”). (¶4 of the Office Action.) The Examiner also rejected claims 48 and 52 under 35 U.S.C. §103 (a) over the Hurwitt and Venkatesh combination in view of U.S.P.N. 6,618,692 issued to Takahashi et al. (the “Takahashi”). (¶5 of the Office Action.) These rejections are respectfully traversed.

As noted above, amended claim 45 requires that the first and second specified qualities include: a processing time required to perform the at least one process, a rate of producing defective output products of the at least one process, a uniformity of output products of the at least one process, and a capability index of the at least one process.

However, the Hurwitt combined with the Venkatesh and the Hurwitt combined with Venkatesh and Takahashi fail to teach or suggest the specified qualities recited in the rejected claims. Hence, claims 47-48 and 51-52 are patentably distinguishable from the above-cited combinations of references. The Examiner is respectfully requested to withdraw these rejections.

II. Cho, Reyes, Venkatesh, and Takahashi Combinations

A. Cho Combined with Reyes

The Examiner rejected claims 45-46 and 49-50 under 35. U.S.C. §103 (a) over U.S.P.N. 6,604,012 issued to Cho et al. (the “Cho”) in view of U.S.P.N. 6,429,783 issued to Reyes et al. (the “Reyes”). (¶3 of the Office Action.) This rejection is respectfully traversed.

First, the Cho cannot be combined with Reyes due to lack of motivation. The Cho is directed to a wafer lot dispatching system that selects the most suitable equipment for a succeeding process. (See, e.g., the Abstract and Col. 3, ll. 27-34 of the Cho.) To achieve this

goal, the dispatching system uses the relationship between the results of the preceding process and the equipment and process conditions of the succeeding process. (See, e.g., Col. 3, ll. 15-19 of the Cho.) In one embodiment, its computer system calculates “skew” values based on measured CD (critical dimension) values of the succeeding process (i.e., an etching process in this embodiment). (See, e.g., Col. 11, lines 4-16.) The computer then calculates span values, which are the bases for determining which succeeding processing equipment is to be used. (See, e.g., Col. 12, lines 16-41.) In another embodiment, its computer system sets the process conditions of the succeeding process based on the results of the preceding process. (See, e.g., Col. 13, line 61 – Col. 14, line 10.) In summary, the system in the Cho requires highly detailed information to be exchanged with succeeding processes (e.g., sending CD values and/or receiving process conditions). However, the Reyes describes a tool that can display (or communicate) only a rudimentary level of information (e.g., “up”, “down”, and “qual”). (See, e.g., Fig., 6.) In order to integrate the tool described in the Reyes into the system described in the Cho, the tool in the Reyes must be extensively modified to supply and/or receive detailed information as required by the Cho. This would require a substantial redesign and reconstruction of the tool in the Reyes. In other words, the principle of operation of the tool in the Reyes must be changed, which indicates that the Reyes cannot be combined with the Cho. (See, e.g., M.P.E.P. 2143.01, stating that “the proposed modification cannot change the principle of operation of a reference.”)

Second, even if the Cho can be combined with the Reyes, the combination does not describe each claimed feature. In particular, amended claim 45 requires that the first and second specified qualities to include: a processing time required to perform the at least one process, a rate of producing defective output products of the at least one process, a uniformity of output

products of the at least one process, and a capability index of the at least one process. The Cho combined with the Reyes fails to teach or suggest the specified qualities recited in claim 45, as amended. Hence, claim 45, claim 46 (which depends on claim 45), claim 49 (which recites similar specified qualities as in claim 45), and claim 50 (which depends on claim 49) are patentably distinguishable from the combination. The Examiner is respectfully requested to withdraw the rejection.

B. Cho, Reyes, Venkatesh, and Takahashi Combinations

The Examiner rejected claims 47 and 51 under 35. U.S.C. §103 (a) over the combination of the Cho and Reyes in view of the Venkatesh. (¶4 of the Office Action.) The Examiner also rejected claims 48 and 52 under 35. U.S.C. §103 (a) over the combination of the Cho, Reyes, and Venkatesh in view of the Takahashi. (¶5 of the Office Action.) These rejections are respectfully traversed.

As discussed above in Sec. II.A, the Cho cannot be combined with the Reyes. Hence, there cannot be the Cho, Reyes, and Venkatesh combination or the Cho, Reyes, Venkatesh, and Takahashi combination.

Moreover, even if the references can be combined as suggested by the Examiner, the combinations do not describe each claimed feature. In particular, amended claim 45 requires that the first and second specified qualities to include: a processing time required to perform the at least one process, a rate of producing defective output products of the at least one process, a uniformity of output products of the at least one process, and a capability index of the at least one process. The combination of the Cho, Reyes, Venkatesh and the combination of the Cho, Reyes, Venkatesh, and Takahashi fail to teach or suggest the specified qualities recited in the

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rejected claims. Hence, claims 47-48 and 51-52 are patentably distinguishable from the combinations. The Examiner is respectfully requested to withdraw these rejections.

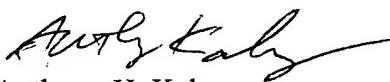
CONCLUSION

The Examiner is respectfully requested to withdraw the objections and rejections and to examine the pending claims favorably.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees, which may be required for this Amendment, or credit any overpayment to deposit account no. 08-0219. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,
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